

DERWENT-ACC-NO: 1995-171842

DERWENT-WEEK: 199745

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TITLE: Slip casting of silica glass preform for drawing to  
optical fibre multi-connector - by forming slip contg.  
silica, casting in cylindrical plastic mould,  
solidifying, drying, de-moulding and heating

INVENTOR: CAMPION, J

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PRIORITY-DATA: 1993FR-0013262 (November 8, 1993)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
EP 652184 A1	May 10, 1995	F	006	C03B 019/12
FR 2712278 A1	May 19, 1995	N/A	000	C03B 019/02
CA 2135256 A	May 9, 1995	F	000	C03B 023/47
EP 652184 B1	January 15, 1997	F	006	C03B 019/12
DE 69401484 E	February 27, 1997	N/A	000	C03B 019/12
ES 2096426 T3	March 1, 1997	N/A	000	C03B 019/12

DESIGNATED-STATES: DE ES FR GB IT SE DE ES FR GB IT SE

CITED-DOCUMENTS: 3.Jnl.Ref; DE 3435772 ; EP 392599 ; EP 473104 ; FR  
2669119  
; FR 2680879 ; JP 61106434 ; JP 61163133 ; JP 63206321

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO	APPL-DATE
EP 652184A1	N/A	1994EP-0402493	November 4, 1994
FR 2712278A1	N/A	1993FR-0013262	November 8, 1993
CA 2135256A	N/A	1994CA-2135256	November 7, 1994

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EP 652184B1	N/A	1994EP-0402493	November 4, 1994
DE 69401484E	N/A	1994DE-0601484	November 4, 1994
DE 69401484E	N/A	1994EP-0402493	November 4, 1994
DE 69401484E	Based on	EP 652184	N/A
ES 2096426T3	N/A	1994EP-0402493	November 4, 1994
ES 2096426T3	Based on	EP 652184	N/A

INT-CL (IPC): C03B019/02, C03B019/12, C03B023/47, C03B037/012, G02B006/36, G02B006/38, G02B006/40

ABSTRACTED-PUB-NO: EP 652184A

#### BASIC-ABSTRACT:

Prod'n. of a preform for a silica glass multi-connector involves (a) preparing a slip contg. at least 50 wt.% synthetic silica of specific surface at least 40 sq.m./g. and an additive selected from at least 2 wt.% NH<sub>4</sub>F or NH<sub>4</sub>HF<sub>2</sub> or max. 0.1 mole/l. HF acid; (b) casting the slip in a cylindrical plastic mould having removable internal rods of circular or diamond-shaped section at desired preform channel locations; (c) solidifying at room temp.; (d) drying for at least 8 hrs. at max. 60 deg. C; (d) demoulding; and (e) carrying out a densification heat treatment at 1300-1450 deg. C for 1-3 hrs. under vacuum or a He atmos..

Also claimed is a preform obtained by the above process.

USE - In the mfr. of a multi-connector for connecting optical fibres together or to an optical waveguide.

ADVANTAGE - The process is reproducible, avoids the need for machining and gives a preform with the requisite precision for drawing to a multi-connector with the desired dimensions.

ABSTRACTED-PUB-NO: EP 652184B

#### EQUIVALENT-ABSTRACTS:

A method of making a multi-ferrule blank out of silica glass, the blank being constituted by a silica glass part having a plurality of mutually parallel

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longitudinal channels, and the method being characterised by the fact that it comprises the following operations: preparing a slip having at least 50% by weight synthetic silica with specific area of not less than 40 m<sup>2</sup>/g, and an additive selected from among ammonium fluoride, ammonium bi-fluoride at a concentration of not less than 2% by weight, or hydrofluoric acid at a concentration of not more than 0.1 moles per litre; casting said slip into a cylindrical mould made of plastics material and containing a plurality of removable rods of circular or lozenge section at the locations of said channels; allowing to set at room temperature; drying for at least 8 hours at a temperature of not more than 60 degrees C; un-moulding; and applying densification heat treatment in the range 1300 degrees C to 1450 degrees for a period lying in the range 1 hour to 3 hours in a vacuum or in an atmosphere of helium.

CHOSEN-DRAWING: Dwg.1/3 Dwg.1/3

TITLE-TERMS: SLIP CAST SILICA GLASS PREFORM DRAW OPTICAL FIBRE  
MULTI CONNECT

FORMING SLIP CONTAIN SILICA CAST CYLINDER PLASTIC MOULD  
SOLIDIFICATION DRY DE MOULD HEAT

DERWENT-CLASS: L01 P81 V07

CPI-CODES: L01-F03F; L01-L05;

EPI-CODES: V07-G10;

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